THU NGUYEN

Stony Brook, New York | thunma2010@gmail.com | /in/thu-tech | /github.com/nmat2010

EDUCATION

Bachelor of Engineering in Computer Engineering - Stony Brook University Graduating 2028

- Awards: You Are Welcome Here Scholar, Global Excellence Scholarship
- Coursework: Programming Fundamentals, Discrete Mathematics, Multivariable Calculus, Research in EE

CERTIFICATIONS

JavaScript Algorithms and Data Structures Certificate
Responsive Web Design Certificate

SKILLS AND TOOLS

- Languages: Python, Java, JavaScript, TypeScript, SQL, HTML/CSS, C/C++, Swift
- Technologies: React, Next.js, Three.js, TailwindCSS, Node.js, Express.js, MongoDB, PostgreSQL
- AI/ML: OpenCV, NumPy, Pandas, Keras, Matplotlib, PyTorch, scikit-learn
- Tools: VS Code, Anaconda, Kaggle, Git/GitHub, Figma, G-Suite, Postman

RELEVANT EXPERIENCES

Undergraduate Research Assistant - Stony Brook University January 2025 - Present

- Enhanced collaborative problem-solving (CPS) models for Humans in the Loop Learning through research funded by the Office of Naval Research.
- Reviewed 20+ academic papers on social learning networks and team formation strategies, summarizing key takeaways for faculty.

PROJECTS

SKINGUARD - Tools: React, MongoDB, Node.js, JWT, Python, FlaskAPI, TensorFlow, Keras January 2025
github.com/nmat2010/skin-guard ***HackNYU'25 Best First Hack Winner***

- Collaborated with a team of 4 to develop a website that allows users to create accounts, upload/take pictures of their skin conditions, get diagnoses from a specialized machine learning model, and get advice from a finetuned AI agent powered by OpenAI API.
- Developed the front end of the website using React to ensure smooth user experiences. Integrated the authentication, user database, and OpenAI API for the chatbot feature using Node.js, Express.js, MongoDB, and JSON Web Token.
- Finetuned an open-source pre-trained machine learning model from Kaggle and integrated it with the website's front and back end.

MEALS BROWSER | Tools: JavaScript ES6+, React December 2024
github.com/nmat2010/meals-browser

- Developed a dynamic React-based meal browsing website, fetching data from TheMealDB API to display 100+ meals based on search input.
- Optimized API requests, reducing load time by 30% through caching and efficient state management.

RESISTORS CLASSIFIER | Tools: Python, OpenCV, PyTorch, Pandas October 2024 - November 2024
www.kaggle.com/competitions/ai-community-internal-comp ***SBU AI Competition Second Prize Winner***

- Optimized a CNN model that classified resistor values with 72% accuracy, outperforming baseline models.
- Implemented dataset preprocessing using OpenCV and augmented data via PyTorch, increasing training efficiency by 25%.

MNIST CLASSIFIER | Tools: Google Colab, Python, scikit-learn July 2024
Google Colab Code

- Built an SVM model to classify MNIST digits (0s and 1s) with 99.9% accuracy.
- Developed a custom Support Vector Machine model from scratch using L-1 Norm Linear Regression, reinforcing fundamental ML concepts.